

# Bor-Ting Jong

## Postdoctoral Research Associate

NOAA Physical Sciences Laboratory  
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## RESEARCH INTERESTS

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- Climate dynamics and variability
- ENSO teleconnections and regional impacts
- Predictability and prediction of hydroclimate variability on subseasonal-to-seasonal time scales
- Extreme events such as droughts and floods on different time scales

## EDUCATION

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### Ph.D., Dept. of Earth and Environmental Sciences, Columbia University, New York, NY, 2019

Dissertation: Seasonality and Regionality of ENSO Teleconnections and Impacts on North America  
Advisors: Dr. Mingfang Ting & Dr. Richard Seager

### M.S., Atmospheric Sciences, National Taiwan University, Taipei, Taiwan, 2013

Thesis: Modulation of Tropical Precipitation by Shallow and Deep Convective Processes  
Advisor: Dr. Chia Chou

### B.S., Atmospheric Sciences (Highest honor), National Taiwan University, Taipei, Taiwan, 2011

## PROFESSIONAL EXPERIENCES

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### Postdoctoral Research Associate, November 2019 – present

NOAA Physical Sciences Laboratory, Boulder, CO  
Teams: Attribution and Predictability Assessments & Atmosphere-Ocean Processes  
Advisors: Dr. Andrew Hoell and Dr. Matthew Newman

### Graduate Research Fellow, 2014 – 2019

Lamont-Doherty Earth Observatory, Palisades, NY  
Division of Ocean and Climate Physics

### Research Assistant, 2013 – 2014

Research Center of Environmental Changes, Academia Sinica, Taipei, Taiwan  
Climate System Research Laboratory (Director: Dr. Chia Chou)

### Student Assistant, 2009 – 2010

Real-time Forecasting Laboratory, National Taiwan University, Taipei, Taiwan

## HONORS & AWARDS

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### National Research Council (NRC) Research Associateship, 2019 – 2021

Project: Predictability and Prediction of Droughts on Subseasonal-to-Seasonal Time Scales  
(at NOAA Physical Sciences Laboratory with Dr. Andrew Hoell and Dr. Matthew Newman)

Taiwan Ministry of Education Fellowship, 2015 – 2017

Dean's Fellowship, Graduate Schools of Arts and Science, Columbia University, 2014 – 2015

Dean's Award in the College of Science for Excellence in Master Thesis, NTU, 2013

Member of The Phi Tau Phi Scholastic Honor Society, 2011

Dean's Award in the College of Science, National Taiwan University, 2011

National Taiwan University Presidential Award (top 5% of class, 5 times), 2007 – 2011

## PUBLICATIONS

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Peer-reviewed journal publications:

**Jong, B.-T.**, A. Hoell, and M. Newman (*in prep*): Springtime subseasonal drought development over the central United States.

**Jong, B.-T.**, M. Ting, and R. Seager (*submitted*): Assessing ENSO summer teleconnections, impacts, and predictability in North America.

**Jong, B.-T.**, M. Ting, R. Seager, and W. B. Anderson (2020): ENSO teleconnections and impacts on US summertime temperature during multi-year La Niña life-cycle. *J. Clim.*, **33**, 6009-6024. doi: 10.1175/JCLI-D-19-0701.1

**Jong, B.-T.**, M. Ting, R. Seager, N. Henderson, and D.-E. Lee (2018): Role of Equatorial Pacific SST forecast error in the late winter California precipitation forecast for the 2015/16 El Niño. *J. Clim.*, **31**, 839-852. doi: 10.1175/JCLI-D-17-0145.1

**Jong, B.-T.**, M. Ting and R. Seager (2016): El Niño's impact on California precipitation: seasonality, regionality, and El Niño intensity. *Environ. Res. Lett.*, **11**, doi:10.1088/1748-9326/11/5/054021.

Other publications:

Seager R., M. Ting, **B.-T. Jong**, M. Hoerling, S. Schubert, H. Wang, B. Lyon, A. Kumar (2015): What can drought-stricken California expect from the El Niño winter forecast? NOAA Drought Task Force, available:  
[https://www.drought.gov/drought/sites/drought.gov.drought/files/what\\_can\\_california\\_expect\\_FINAL3.pdf](https://www.drought.gov/drought/sites/drought.gov.drought/files/what_can_california_expect_FINAL3.pdf)

## CONFERENCE PRESENTATIONS

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**Jong, B.-T.**, A. Hoell, M. Newman: Subseasonal evolution of springtime flash droughts over the central United States. (submitted) 2021 American Meteorological Society Annual Meeting

**Jong, B.-T.**, M. Newman, A. Hoell: The role of stationary Rossby waves in springtime hydroclimate over the central United States. (poster) 2020 American Geophysical Union Fall Meeting

**Jong, B.-T.**, M. Ting, R. Seager: Assessing ENSO summer teleconnections and impacts on North America in GCMs. (oral) 2020 CESM Climate Variability & Change Working Group Meeting, Boulder, CO, Mar. 2020

**Jong, B.-T.**, M. Ting, R. Seager: Assessing ENSO summer teleconnections and impacts on North America in GCMs. (oral) 2019 American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 2019

**Jong, B.-T.**, M. Ting, R. Seager: Seasonal evolutions of ENSO teleconnections and impacts on North America. (oral) 2019 American Meteorological Society Annual Meeting, Phoenix, AZ, Jan. 2019

- Jong, B.-T.**, M. Ting, R. Seager: Understanding the La Niña summer teleconnections in North America. (poster) 2018 American Geophysical Union Fall Meeting, Washington D.C., Dec. 2018
- Jong, B.-T.**, M. Ting, R. Seager: ENSO teleconnections and impacts on North America during boreal summer. (oral) 2018 Graduate Climate Conference, Seattle, WA, Nov. 2018
- Jong, B.-T.**, M. Ting, R. Seager: ENSO teleconnections and impacts on North America during La Niña summers. (*keynote speaker*) IV International Conference on El Niño-Southern Oscillation, Guayaquil, Ecuador, Oct. 2018
- Jong, B.-T.**, M. Ting and R. Seager: Impacts on Midwest US summer temperature and precipitation during ENSO transitions. (poster) 2017 American Geophysical Union Fall Meeting, New Orleans, LA, Dec. 2017
- Jong, B.-T.**, M. Ting, R. Seager and D.-E. Lee: Why did the 2015/16 El Niño fail to bring excessive precipitation to California? (oral) 2016 American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 2016
- Jong, B.-T.**, M. Ting and R. Seager: El Niño's impact on California precipitation. (poster) 2016 Graduate Climate Conference, Seattle, WA, Oct. 2016
- Jong, B.-T.**, M. Ting, R. Seager and D.-E. Lee: Why did the 2015/16 El Niño fail to bring excessive precipitation to California? (oral) NOAA's 41<sup>st</sup> Climate Diagnostics and Prediction Workshop, Orono, ME, Oct. 2016
- Jong, B.-T.**, M. Ting and R. Seager: Factors Contributing to Extremely Wet Winters in California. (poster) 2015 American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 2015
- Jong, B.-T.**, M. Ting and R. Seager: Factors Contributing to Extremely Wet Winters in California. (poster) 2015 Graduate Climate Conference, Woods Hole, MA, Nov. 2015

## SERVICE

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**Reviewer**, 2017 – present

Journal of Climate, Journal of Geophysical Research – Atmosphere, Climate Dynamics,  
International Journal of Climatology, Earth System Dynamics

**Reviewer**, 2020

International Panel on Climate Change (IPCC) – *Sixth Assessment Report (AR6) Climate Change 2021: The Physical Science Basis* (Working Group I, Second Order Draft)

**Graduate Student Committee – Alumni and Careers Chair**, 2018 – 2019

Dept. of Earth and Environmental Sciences, Columbia University

**Student Committee – General Affairs Chair**, 2009 – 2010

Dept. of Atmospheric Sciences, National Taiwan University

## TEACHING

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**Columbia University | Dept. of Earth and Environmental Sciences**

Teaching Assistant: Earth's Environmental System – Climate System (undergraduate level), Fall 2017  
- Led quantitative and experimental labs

Teaching Assistant: Quantitative Models of Climate – Sensitive Natural and Human Systems, Fall 2016  
- Climate and Society Master program, led quantitative labs

Teaching Assistant: Introduction to Atmospheric Science (graduate level), Fall 2015

**National Taiwan University | Dept. of Atmospheric Sciences**

Teaching Assistant: Atmospheric Radiation (undergraduate level), 2011 – 2012

Teaching Assistant: Exploring Taiwan – Geographical Environmental and Resources, Spring 2012  
- General course for international students

**SKILLS & TRAINING**

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**Programming** Python, MATLAB, Fortran, NCL, Shell script

**Modeling** GFDL Spectral Atmospheric Dynamical Core, stationary wave model (Ting and Yu 1998)

**Training** Community Earth System Model (CESM) Tutorial (2015), NCAR Mesa Lab, Boulder, CO

**Language** Traditional Chinese (native), English (fluent)

**OUTREACH**

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Volunteer, Lamont-Doherty Earth Observatory Open House, 2014

- Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY

Volunteer, “Aiming High for A Low-Carbon Taiwan Exhibition”, 2011

- Ministry of Science and Technology, Taipei, Taiwan

Vice-director, Atmospheric Science Summer Camp for senior high students, 2009

- National Taiwan University, Taipei, Taiwan